

INTRODUCTION

During a telephone conference with the Examiner on February 26, 2003, the Examiner and the Applicant discussed informally submitted amended claims, as well as newly cited references located by the Examiner. The Examiner indicated that he would consider the amended claims in light of the newly cited references and issue a non-final Office Action based on the amended claims. Pursuant to that conference, the Applicant submitted amended claims in anticipation of the Examiner's formal review of these claims in light of the newly cited references as part of a February 26, 2003 Supplemental Response to Office Action. On July 11, 2003, the Examiner issued a final Office Action rejecting the Applicant's amended claims.

The Applicant respectfully submits that the prior art newly cited by the Examiner does not set forth a *prima facie* case for rejecting the amended claims previously discussed with the Examiner. Accordingly, the Applicant traverses all of the rejections made in the final Office Action and requests reconsideration of the application and allowance of the claims.

REMARKS

Claims 1, 3-6 and 8-28 are currently pending in the application. Claims 23 and 24 were previously withdrawn. The Applicant cancelled claims 2 and 7, amended all remaining claims except claim 12 and added new claims 25-28. Herewith, the Applicant amends claims 1, 4, 6, 14, 21, 22 and 28 and cancels claim 27. The Applicant respectfully addresses the objections and traverses all of the rejections made in the final Office Action.

AMENDMENT TO CORRECT DRAWINGS

No amendment to correct the drawings is necessary as the claim prompting the drawing objection (claim 27) has been cancelled.



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CLAIM OBJECTIONS

The Office Action objected to claims 1, 4, 6, 14, 21, 22 and 28 on the basis that the word “engageable” therein should be “engagable”. The Applicant has amended each of these claims accordingly.

REJECTION OF CLAIM 27 UNDER 35 U.S.C. § 112

The Office Action rejected claim 27 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and as failing to comply with the enablement requirement. The Applicant has cancelled claim 27.

35 U.S.C. § 103(A) REJECTION OF CLAIMS 1, 14, 19-21 AND 28 OVER MECUM AND ASHOORI

The Office Action rejected claims 1, 14, 19-21 and 28 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,733,127, issued to Mecum, in view of U.S. Patent No. 5,678,337, issued to Ashoori. Claims 19 and 20 depend upon independent claim 14 and are therefore patentable over the cited references for the same reasons that make claim 14 patentable, as noted above.

Mecum is distinguishable

The Examiner makes a number of assertions regarding what is disclosed by Mecum. First, the Examiner asserts that Mecum discloses a design tool and system for use in association with design plans having hallways, doorways, stairways, rooms and other spaces of a known scale, for functional and space planning in the fields of architecture, interior design, and construction of residential and commercial structures. Second, that Mecum comprises an icon figure member 31 having a base engagable with the design plans. Third, that the icon member is attached to the base, and the base is equal to or greater in diameter than the icon figure member. Fourth, that the icon member and base are scaled to inherently indicate a turning radius to imitate and indicate the turning radius of a wheelchair support device. Fifth, that the Mecum map is set to scale to represent an area, along the hallways, doorways, stairways, rooms and other spaces of



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the design plan to visually illustrate the feasibility of movement along the noted paths in light of the size and turning radius of the represented person. The Applicant submits that virtually all of the Examiner's assertions are without basis in the Mecum disclosure or inapplicable to the Applicant's claims.

By way of overview, it must be appreciated that Mecum is directed to device and method for use in "wayfinding." Wayfinding is a term of art referring to the use of facilities, objects, materials, surfaces, color and graphics to aid persons of all abilities in successfully finding their way to the element they are seeking to find. As concisely set forth in the Abstract of Mecum, the invention therein is directed to a:

[d]evice and method of employing the device relating to a tactile map of a bathroom or other area of interest for use by visually impaired persons, comprising tactile symbols emplaced upon a plaque or underlying surface such as a wall or door proximate the area.

As expressly stated in the patent, the focus and point of novelty of Mecum is the map feature. (Col. 2, ll. 1-3.) The key to providing the Mecum map is to provide a consistent shape of represented objects to a user so as to represent the positional relationship of the objects with reference to each other. (Col. 2, ll. 29-35.) The difference between Mecum's map used for *navigation* and the Applicant's design tool used for *space planning in construction design* is key. For Mecum's purposes, positional relationships between relatively sized objects are needed. But this is not sufficient for the Applicant's purposes, namely, to provide design tools for space planning in construction design.

First, Mecum's tactile map is not a design plan having hallways, doorways, stairways, rooms and other spaces of a known scale. Rather, Mecum's tactile map is specifically described as providing objects in a "representative sense approximate" to real life objects that are to represent. (Col. 4, l. 19.) For the navigational purposes, Mecum's tactile map is "more or less 'to scale,'" (col. 4, ll. 20-21) rather than dimensioned precisely to scale as required for design plans used as reference in architecture and construction to represent actual hallways, doorways,



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stairways, rooms and other spaces. Moreover, there is not indication whatsoever in Mecum that the disclosed tactile maps can be used functional and space planning in the fields of architecture, interior design, and construction of residential and commercial structures. Again, Mecum's maps are specifically for navigation, not design planning for architecture, interior design, and construction.

Second, Mecum does not disclose an icon figure member 31 having a base engagable with the design plans. Mecum does not appear to disclose any element having a reference number "31", let alone an icon figure member as required in the Applicant's claims. The object in Figure 11 referenced by the Examiner shows elements 107, 108 having pegs 28. Such pegs do not allow elements 107, 108 to be engagable with a design plan in a way to indicate a turning radius. Indeed, the use of pegs to hold the elements 107, 108 in the pegboard 25 of the tactile map precludes any motion by the elements to "imitate the turning radius" of the claimed support device, as required in the Applicant's claims.

Third, Mecum does not appear to disclose any element having an icon figure member as required in the Applicant's claims. Moreover, there is no requirement in the claims that the base attached to the icon member (in certain embodiments) be equal to or greater in diameter than the icon figure member.

Fourth, there is no disclosure in Mecum that the object elements disclosed (e.g., 107, 108) are scaled to "indicate a turning radius to imitate the turning radius of a wheelchair support device," as required in the Applicant's claims. The objects used in Mecum's tactile navigation maps are "tactile symbols," not scaled to represent the precise dimensions of the objects they represent. As taught in Mecum:

The phrase "tactile symbols" (2, 103) is generic in character in the sense that it may include a face (7, 107) shaped like alphabetic letters (See lettered narrative (30) in FIG. 14); numbers; Braille dot systems (29); commonly recognized elementary geometric forms such as squares, circles, triangles, rectangles, ovals and ellipses [sic] irregularly shaped objects which may either be a combination of such commonly recognized geometric shapes or in a configuration not resembling



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any of them; and shapes which to a greater or lesser extent resemble or mimic in a miniaturized fashion those of the objects they represent. (Col. 5, ll. 43-53.)

Mecum in fact teaches away from a need for any correlation—let alone a precise correlation—between the symbolic object and the true life scale with respect to the represented object: “Any tactile three dimensional shape one may devise may be emplaced upon the plaque (5, 25). . . it is only necessary that the observer be able to understand the symbol’s (2, 103) shape.” (Col. 5, l. 66 through col. 6, l. 9.)

The passages from Mecum cited by the Examiner do not provide support for the proposition that Mecum discloses or teaches the scaling requirement of the Applicant’s claims. Column 5, lines 51-53 state only that the tactile symbols may be in “shapes which to a greater or lesser extent resemble or mimic in a miniaturized fashion those of the objects they represent.” This does not disclose, let alone require, that the shapes be scaled to the objects they represent. Rather, it suggests approximate representation only to the extent necessary to allow the user to recognize the symbol’s shape. Column 9, lines 52-56 state:

However the plaque (5, 105) or underlying surface (6, 25) itself is deployed or shaped, there is merit in assembling the symbols (2,103) for the mapped area upon it approximately to scale. That feature would permit the user to work his or her way through a roughly estimated distance between identifiable points.

Again, this discloses *approximating* the objects being represented, not providing them to scale. Likewise, Mecum teaches that the tactile symbols need only be approximated as necessary for the user to recognize the symbol’s shape and the relative distances between the tactile symbols for navigational purposes. It would be difficult for a sightless person to navigate between a toilet and a sink if the toilet was shown as ten times the size of the sink. In contrast, however, it is necessary in the Applicant’s claimed invention that the icon figures and base be to scale when used with the design plans to allow for accurate functional and space planning. Without this proper scale, hallways would be improperly sized and doorways too small for the intended purpose.



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Fifth, because the Mecum map is symbolic for navigational purposes and not to scale, Mecum does teaches away from representing an area, along the hallways, doorways, stairways, rooms and other spaces of a design plan in a way that visually illustrates the feasibility of movement along the noted paths in light of the size and turning radius of the represented person.

Because Mecum fails to disclose the elements for which it is cited, or to teach the limitations of the Applicant's claims, Mecum is not properly the basis for rejection of any of the Applicant's claims. Without Mecum as the basis for the Examiner's rejections, none of Applicant's claims are properly rejected. Accordingly, on this basis alone, the Applicant's claims 1, 3-6, 8-26 and 28 should be allowed.

Ashoori is distinguishable and not combinable with Mecum

The Office Action acknowledges that Mecum does not disclose the icon figure member shaped as a human seated in a wheelchair. The Office Action states that Ashoori discloses a three-dimensional signage (2) for a horizontal surface (6) wherein the shape of the signage is of a human (4a, 4b, 4e) seated in a wheelchair (4c, 4d) (Figure 1). The Applicant submits that the invention of Ashoori does not disclose, teach or suggest the Applicant's icon figure member. Moreover, Mecum and Ashoori are not combinable as suggested, the teachings of Mecum and Ashoori provide no motivation to combine one with another, and in fact teach away from each other.

Ashoori is directed to signage attached by adhesive to a horizontal surface, such as pavement, asphalt or cement. (Abstract) The Ashoori signage is meant to be immovably affixed to a stationary portion of a road or other drive. There is no suggestion that the Ashoori signage is meant to be incorporated onto a movable object, let alone a tactile symbol used in navigational maps. There is no teaching or suggestion that the Ashoori signage can be used in the miniature representational symbolic objects used in Mecum. Ashoori teaches using a symbol on the immovable surface of a roadway where Mecum teaches using tactile symbols in a small map to



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be used to assist in navigating the space. Moreover, Ashoori teaches a complicated wheelchair shape comprised of a plurality of signage portions. (Col. 3, ll. 9-11.) Using a complex symbol runs contrary to the express requirements of Mecum that the symbolic shape be simple and “readily recognizable . . . not easily confused with another.” (Mecum, col. 6, ll. 9-10.)

Accordingly, the Applicant’s claims 1, 3-6, 8-26 and 28 should be allowed.

35 U.S.C. § 103(A) REJECTION OF CLAIMS 3-6, 8-13, 15-18, 22, 25 AND 26 OVER MECUM, ASHOORI AND STANSBURY

The Office Action rejected claims 3-6, 8-18, 22, 25 and 26 under 35 U.S.C. § 103(a) as being unpatentable over Mecum in view of Ashoori and further in view of U.S. Patent No. 4,276,695, issued to Stansbury. For the reasons set forth above, Mecum and Ashoori are not properly cited to provide the basis for rejecting the Applicant’s claims. Accordingly, on this basis alone, claims 3-6, 8-18, 22, 25 and 26 should be allowed. In addition, the Applicant submits that Stansbury does not disclose, teach or suggest the Applicant’s wand member. Moreover, Mecum and Ashoori are not combinable with Stansbury as suggested, the teachings of Mecum, Ashoori and Stansbury provide no motivation to combine one with another, and in fact teach away from each other.

With respect to claims 3-6, 8-9, 12-13, 15-16, 22 and 26, the Office Action acknowledges that Mecum and Ashoori do not disclose a wand member extending from the icon figure at any angle relative to the perpendicular or from an opening in the icon figure wherein a first end of the wand member is maintained within the opening by frictional contact. The Office Action states that Stansbury discloses a roller measure device (30) with an opening (101) with a wand/handle member (44) wherein the wand/handle member is held within the opening by frictional contact/sonic welding (col. 6, lines 48-4) or any other connection means (Figure 5) in order to push the device around easily.

There is no teaching or suggestion to combine the handle 44 of Stansbury with the tactile symbol objects of Mecum, let alone to do so in combination with the signage of Ashoori. The



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handle 44 of Stansbury is meant to propel a “portable mechanical roller measure device for moving forwardly along a surface and thereby measuring a distance there along.” (Stansbury Abstract.) In contrast, as facilitated by the pegs 28 and the pegboard 25 surface of the Mecum tactile map, the symbolic objects used in Mecum are meant to be stationary, or moved only to show altered placement of fixtures, for navigational purposes. With the pegs of the Mecum objects inserted in the pegboard, it would not be possible to use the handle 44 of Stansbury to move the objects, especially in the manner required by the Applicant’s claims, namely, to “indicate a turning radium to imitate the turning radium of a support device.”

With respect to claims 11 and 18, the Office Action acknowledges that Mecum and Ashoori do not disclose first and second ridges along the opening and wand/handle member respectively to provide a snap lock combination. The Office Action states that Stansbury discloses a snap lock combination between two ridges (172, 173) on two pieces (52) of the wand/handle member that form a snap lock combination when placed together (Figure 9).

The Applicant initially notes that Stansbury does not disclose or teach using sonic welding to secure the handle 44 to the roller measure device 30. At column 6, lines 48-50 it teaches that sonic welding may be used to join projections 46 to the housing, forming the mold into which the handle is placed. Thus, contrary to the Examiner’s suggestion, there is no teaching to secure the wand to the object using sonic welding or any such equivalent.

In addition, the Examiner incorrectly suggests that a snap lock combination between sections of the handle 44 of Stansbury teaches or suggests a snap lock combination between the handle 44 and the roller measure device 30. To the contrary, there is not suggestion in Stansbury to affix the handle 44 into the roller measure device 30 other than by friction. To do so is unnecessary, as the only force when using the roller device is in a direction to maintain the handle securing in the opening.

With respect to claims 10 and 17, the Office Action acknowledges that Mecum, Ashoori and Stansbury do not disclose a metal plate located in the opening, and a magnet in the end of the



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wand/handle member, thereby providing a plate-magnet combination. The Office Action suggests that the use of a metal plate-magnet combination is considered an obvious engineering choice.

The Examiner fails to meet his burden of providing any reference showing the use of the metal plate-magnet combination claimed by the Applicant, or that there is any teaching, suggestion or ability to combine this feature with the cited references. Moreover, contrary to the Examiner suggestion, the Applicant identified in the application at least one advantage of the use of the magnet plate-magnet embodiment, namely, as necessary counter balancing of the icon figure to best achieve usability. (Application page 4, lines 15-20.)

With respect to claim 25, the Office Action acknowledges that Mecum, Ashoori and Stansbury do not disclose at least two wheels supporting the chair of the icon figure member. The Office Action suggests that having two wheels associated with a wheelchair is obvious. However, the Examiner fails to provide any teaching, suggestion or ability to combine this feature with the cited references. For example, there is no suggestion that incorporation of two wheels in a symbolic shape of Mecum will maintain the simplicity of the shape scheme so as to allow the user to "readily recognize" the shape for purposes of navigation.

CONCLUSION

The Applicant submits that the claims are patentable over the prior art, and accordingly the Applicant respectfully requests reconsideration of the application and allowance of the claims. To the extent that a rejection is maintained with respect to any pending claim, the Applicant would appreciate a timely advisory action from the Examiner.

The Examiner is invited to contact the undersigned should direct communication on this matter be deemed helpful to facilitate progression of the case.



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